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CRITICAL ANALYSIS
OF RECENT PUBLICATIONS
IN THE
DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND MEDICAL PHILOSOPHY.

De l'Education Physique de l'Homme; par ML. FRIEDLANDER, D. M. &c. &c. à Paris, chez Treuttel, et Würtz; 1815.

THIS, if not a very profound, is a very pleasing and interesting work. The nature of his subject necessarily involves the author in a great deal of matter that is superficial and common-place; but we do not recollect to have met with a treatise on *hygieine* which has less to answer for, on the score of jejuneness, than the one now before us. We are, moreover, surprised at the idiomatic correctness, and even eloquence, with which Dr. Friedlander writes in the language of a country of which he is not a native. There are to be found some passages, and even pages, in his book, which are, if we may be allowed to judge, master-pieces of French composition.

One of the first topics on which our author treats may serve to excite a smile among many of his readers; for we are not much accustomed, on this side of the water, to *grave* discussions respecting the best possible combination of circumstances for the propagation of the race, or (excepting by a Shandean mystic) to hear the question agitated whether "y'a-t-il à prendre, pendant l'acte qui contribue le plus immédiatement à la propagation, des précautions, afin de favoriser la naissance d'heureuses dispositions." This discussion, however, ends as it should do; and Dr. Friedlander tells us that of all the institutions that the contrivances of man have been able to devise, that of marriage promises the most in favour of progeny, inasmuch as it insures the most watchful care over the physical and moral education of children.

What period of the year is principally prolific? is another discussion of our author's, the conclusions from which are not of sufficient moment to command our notice: in this part of the book, however, we meet with some observations on the subject of monstrosities, and on the gradual diminution both of these and casualities to mothers and new-born infants, which are not without considerable interest.

"The celebrated Professor Chaussier (we are told) took particular notice, during the space of nearly five years, of the cases of deformity which happened in the *Hospice de la Maternité*, where accidents, if any where, are likely to occur; and the result of his observation was, that out of 23,293 infants, there were only 132 which were ushered into the world with any marks of external deformity: thirty-seven of these had some defect or lameness of the feet, which is the most common of all defects, and occasioned, with most others, without doubt, (as he conceives,) by the practice of mothers, who are admitted into this institution, of frequently tightening their dress for the purpose of concealing their pregnancy. Among thirty-four children (the Professor goes on to remark) who were deformed, as to the shape of the head or the vertebral column, there was not to be found a single instance of resemblance, in any degree whatever, to frogs, apes, rams with horns, devils *(diables)*, or other such-like beings, about which so much noise was made in former times, when fancy supplied the place of observation. Indeed the very extent of the deformities was a mutilation or displacement of natural parts, and this, in the majority of instances, palpably referable to the causes just named."

We have a pleasing note of Dr. Friedlander's appended to the above statement of Chaussier, pointing out the gradual, and, indeed, subsequently to the year 1789, rapid and striking, diminution of casualities to lying-in women, and infants at birth, in the Lying-in Hospital at London, a circumstance which he attributes to "an improved regulation in the concerns of the house, and other accessory *(accessoires)* causes."

In the second chapter, Dr. Friedlander supposes that much benefit would accrue to the community at large, in reference to the physical management of children, were a census to be taken by each individual accoucheur of the length, breadth, height, and weight, of every child which he was instrumental in bringing into the world.

> "These observations (he says), repeated in different countries, in respective families, and among the several classes of the community, would indicate the improvement or deterioration of the race, and by what particular circumstances such variations might be accompanied."

For our own parts, we think that there is somewhat of inapplicable precision in suggestions and plans of this kind, and that we should be likely, by following such courses, to lose sight of generals in the search after particulars,—a fault which is, in our own minds, not an unusual attribute of foreign physiology. We shall, however, present the reader with the following table of proportionate weights of new-born infants, made, upon a large scale, at the institution to which allusion has just been made.

"Out of 7077 infants, born between the middle of the year x* and the last of July 1806, which were weighed with the greatest care,

54	were found to weigh from	1	to	1½	pound.
69		2	..	2	idem.
164		3	..	3	idem.
369		4	..	4	idem.
1317		5	..	5	idem.
2799		6	..	6	idem.
1750		7	..	7	idem.
463		8	..	8	idem.
82		9	..	9	idem.
5		10	..	10	idem."

But we must not, according to Dr. Friedlander, rest satisfied with the measurement and weight of children newly born: it is necessary to follow up their progression and increase in a regular series; and, by such means, we should judge, from comparative estimates, whether nature were performing her functions in due course, or whether there were some impediments or interruptions to healthy accretion.

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* Meaning, we presume, of the Republic, which, dated from A.D. 1792, makes the period alluded to commence in 1802, and comprehends the term of four years.—Edit.

"M. Schwarz (he tells us) measured and weighed one of his own children, after the following manner:

	inch.	lines.		pounds.
At first he was found to measure	18	8	to weigh	6
the end of 8 days	20	2		7½
3 weeks	20	8		8½
4	20	11		8¾
5	21	3		9¼
7	21	8		9¾
9	22	0		11
11	23	3		11¼
13	23	7		11⅜
5 months	24	0		13½
6	27	7		14

The chapter in which these calculations and observations are met with, is terminated by the following division of the period of infancy into three epochs.

"The first, which commences at birth, and terminates about the sixth month, seems to be principally destined for suction and simple respiration. In this epoch is especially to be noticed a predominance of fluids over the solid part of the system, of lymphatics over blood-vessels, and of cellular substance above muscular fibre. The head is large, the heart bears a proportion to the body of eight to one over the adult state, the pulse beats from 120 to 140 in a minute, the senses and the understanding seem to be in a state of inactivity, and sleep is the principal want of life.

"The second epoch, more complicated and active (*plus orageuse*), commences with the process of teething, at about the seventh month. At this period begins the necessity for a new kind and mode of nourishment; and the developement of corporeal powers invites likewise to something more of energetic exercise. This is the epoch of the principal derangement of functions; and feverish irritations are now very common attendants on the teething process, by which the several maladies incident to the state of childhood are rendered more severe in their nature, and malignant in their aspect.

"From the time of dentition to the period of puberty, we do not meet with any particularly-marked interruption in the general progress of development. It may be necessary, however, just to notice the second teething, which takes place about the seventh year, and which, although not, for the most part, attended with much irritation of the frame, has, nevertheless, some influence over its physical character. Between the first and second dentition, the efforts of the system are mainly directed towards the completion of the general functions; the digestion gradually accustoms itself to variety of aliment, the chest becomes expanded, the organs of smell and several parts of the countenance develop themselves, the cartilages are ossified, and new actions take place throughout the whole body; the arterial pulsations are reduced to 80 or 90 in a minute, and in the same proportion is augmented the power of the muscular fibre; the brain approaches much nearer to the adult size; and the animal spirits become, in some measure, subordinate to the voluntary power. Almost all the diseases incident to our earlier years make their appearance and exit during this interval, such as the tinea-capitis, eruptive affections behind the ears, worms, rickets, measles, and small-pox. It is not until after the seventh year, and when the second set of teeth have made their appearance, that the digestive powers show themselves equal to a more substantial nutriment, that the lungs take on the adult colour, and that the male voice becomes a little more characteristic; the sutures of the cranial bones now form, the chin increases in size, the physiognomy acquires somewhat of character, and the parent, or instructor, begins to have some influence over the senses and the intellectual faculties." P. 45–8.

The third chapter need not detain us long. It principally consists of directions respecting the best substitutions of food for the mothers' milk, when that cannot be obtained; and of general rules in reference to nursing. We here meet with a compliment to English mothers, as it relates to the management of their infants. French nursing has in it, he says, too much of tendency to a premature excitation of vivacity, while the German system, on the contrary, proceeds too much upon the plan of quieting and unduly curbing the animal spirits. Dr. Friedlander is an enemy to abrupt weaning. He thinks that the process should commence even from the third mouth, and, in the general way, not be completed till between the seventh and ninth, about the period of dentition. He is rather unfriendly to the plan of cutting upon the teeth, in order to assist their development, and lessen the irritation occasioned by difficult dentition. "For the most part (he says) it is best not to interfere with the operations of nature." This doctrine, however, carried to an extreme, would go to the prevention of any artificial assistance in maladies in general, and would be fatal to the pretensions of the medical art. In reference to the question of incision, in cases of difficult dentition, we would say that it ought not to be done too early, or for every trivial irritation; but that, when the incision *is* made, it ought to be much more freely and deeper than is generally practised. The objection may be valid to an early and frequent cutting of the gum, that it is apt to leave cicatrices, and thus increase the evil it is intended to lessen.

In the fifth division of his work, the author enters into a more minute detail respecting the chemical composition, and nutritive qualities, of the different aliments that are used, either directly or indirectly, for the sustenance of infants. We meet again here with a little more nicety in the way of calculation and statement of elementary proportions, than we are accustomed to find in this country in practical works; but, deducting something from the merit of the treatise before us, on the score of its being rather too much tinctured with Gallic or German particularities, we find in this, as in many other parts, much that is applicable and instructive. Our limits will not allow us more in the way of extract than an abridgment of the statement which the author introduces at the end of this chapter, of the progress of man, from his original condition of savage simplicity, to that of civilization and complicated wants.

> "In the state of nature, the mother suckles her infant for a considerable time. She afterwards nourishes it with the vegetable and animal products of the land, rudely prepared for aliment. Man, in this condition, is not pampered by variety; his digestion is active, his exercises violent. Agriculture soon follows the more simple state of nature. The peasant, however, retains a simplicity in his diet, an uniformity in his habits of life. He has scarcely any call but for the exertion of his animal strength, and his existence is but a small remove from the savage. But families shortly increase;—the village becomes a town, the town is converted into a city. Individuals leave their native places in search of fortune and adventures: upon their return, they introduce among their old associates new tastes, new habits, and new aliments. A desire for change engenders commerce—commerce stimulates to manufactures. Professions commence from this new order of things; and now the intellectual faculties are called into exercise, and assert their superiority over mere bodily strength. In this new and complicated condition of existence, different parts of the human frame are, as it were, put into requisition at the expense of the rest. One calling requires the exertion of the lungs, another more particularly of the head, while, in some again, the muscles are almost solely employed. Under these circumstances infants are born, and while they bring into the world with them the irregularities, defects, and, in some respects, the approach to greater perfection, of their parents, they are, of course, subjected to the same mode of sustenance, and the same general habits."

The evils and remedies of social and civilized life are pursued in this manner, through a considerable extent of detail. Our author all along is full of very pleasing anticipations respecting the eventual mastery of intellect in this contest, as it were, between the external ills to which man is exposed, and the resources for their counteraction with which he finds himself furnished. He is not, indeed, a disciple of that doctrine which teaches the absolute perfectibility of man in his moral and physical nature, but he thinks that what has already been effected by science, warrants a very favourable inference in respect of what yet remains to be accomplished. On the subject of contagions, we meet with the following observations and statements.

"Besides the constant and inevitable influence of seasons, we are exposed likewise to some other causes of distempers which remain to be noticed, namely, *particular contagions,* which affect the system either through the medium of the lungs or the skin; these are either derived from a-far, and brought to us by the winds, are conveyed from a distance by bodies who have been infected with them from contact, or we receive them by actual and immediate communication with infected individuals. These contagions often produce the necessity of complete isolation. Venice, for example, during the time that she was in the possession of the Levant trade, established quarantine laws in order to prevent the introduction of the plague by means of imported cotton. In the seventeenth century, Paris was visited with this malady, and it became necessary to convey the infected, without exception, into houses at a distance from the city, and to forbid their communication with others; and, when Europe some years since was menaced with the yellow fever, plans of prevention were likewise put in practice. In regard to the contagion of *small-pox,* quarantine laws were never thought of. This poison at one time occasioned the death of one in seven of the whole population of London; at a later period, the proportions came to be about one in ten or thirteen. After the practice of inoculation, at the commencement of the last century, was introduced into Europe from Turkey, and when the most favourable time and circumstances were chosen for the operation, the deaths were not more than one in four or five hundred, of those who were infected in this way. Notwithstanding which, the general mortality from the distemper was not diminished, as there were no laws in force for isolating the subjects of inoculation, England lost at least 21,000 every year, out of a population of a little more than 9,000,000; and it was calculated that the annual deaths in Europe, from small-pox alone, was 400,000. After the introduction of *vaccination*, the police of Copenhagen obliged all its subjects to have recourse to it, and to separate entirely those children from any communication with others, who by any accident had taken the small-pox; during the space of one whole year, there was but one instance subsequent to this regulation of death from small-pox. This measure has accordingly been adopted since in several of the Germanic states, and among others in Prussia, a country in which the medical police always meets with great facilities in its operations. But the circumstances of the recent wars have,

have often interrupted the execution of these plans, so salutary to the general population.

"Although England gave birth to the discovery of vaccination, the practice did not become general in London until the year 1803. According to a census of deaths from small-pox, from the year 1788 to 1797 inclusive; the numbers were found 18,538. From 1803 to the end of 1812 the deaths were only 11,532, which is a diminution of 7006. In 1813, only 898 died, which is a fourth less than the preceding year. A committee exists in that country for the distribution of the vaccine virus, and the number of charged glasses (flacons) distributed last year amounted to 25,394.

"In the last report from the central committee of Paris, an account was communicated of the comparative mortality of those different departments in which vaccination had met with most encouragement. At Strasbourg, the deaths in 1803, were 518 from small-pox; in 1812, only one. In forty-three communes of the department de l'Oise, 13,770 individuals died during the ten years preceding the introduction of the vaccine fluid into France, and in the subsequent ten years only 10,510, which is a diminution of 3260. For this happy result, we are indebted to the noble and active exertions of M. le Duc de la Rochefoucauld. Three-fourths of all the children that were born in 1813, have been vaccinated, and it has been ascertained that 3,065,000 individuals have been subjected to vaccination since 1804.

"It is remarkable, that in Asia and among the half civilized colonies of Africa and America, the people have been more eager for, or at least less fearful of the new inoculation than the inhabitants of Europe. The government of the Cape of Good Hope, and that of Ceylon, have already effected the total extinction of the small-pox."

Such are the statements of Dr. Friedlander respecting morbid poisons, and his inference from the whole is, that "it ought to be admitted as a part of the physical management of children, that all those who are affected with any disease which is capable of being communicated to another, should immediately and without reference to circumstances, be separated from other individuals; and, that vaccination, the unequivocally good effects of which are every day visible, ought never to be neglected."

The next chapter is on the subject of exercise; under this division, the author is not less interesting than instructive. He regards every minute peculiarity of a nation and people as more influential upon, and more intimately connected with, their moral, physical, and political, condition than is generally suspected. In support of this position we meet with some remarks and facts, which we are sorry our limits will not permit us to transcribe. Yet, this again gives scope to that theorizing and system-making enthusiasm, which, though common on the continent, has never been admitted by the more sober philosophers of Great Britain. Every evil is to disappear before the march of intellect, and every thing is eventually to be compassed by the penetration and powers of man.

The parts of the work which treat on the several senses are not of course susceptible of any satisfactory analysis; suffice it to say, that the reader of the book will find, especially on the subject of the organ of speech and the general theory of language, a good deal that is pleasing and philosophical, if not very new or profound. Here again we find Dr. F. full of sanguine anticipations; he admits, indeed, that the various projects which have hitherto had place for the purpose of improving and simplifying language upon the principles of sound, have not done much, "but the impulse has been given, and it is probable that in no very distant day, some superior understanding shall find out the means for doing away the obstacles which at present impede the art of pronouncing, when simple rules may be developed of universal application. Indeed, if we understand him aright, he goes so far as to suppose the time when philosophy shall have annihilated national and local impediments and disabilities to the expression of certain sounds, such as the continental *th*, and the English intermediate something between *oo* and *u*.

On the subject of stammering, which has recently occupied the attention of several persons in this country, as well as on the continent, we do not find much of novelty, or of matter capable of any practical application. "Amman (he tells us,) makes stammering individuals practise the pronunciation of the explosive (explosives) syllables, such as *pac*, *pec*, *tac*, *toc*, *tic*, &c." The fact is, that the theory of stammering is inexplicable upon any principles with which we are at present acquainted. When, indeed, we discover any organic malconformations, such as occasion impediments to the labial and dental sounds, we find no difficulty in giving their explication, and pointing out their partial remedies; but, when an actual incapacity of pronunciation exists, so that the individual shall only be capable of a kind of spasmodic or convulsive exercise of the organs of speech, without any visible organic defect of structure, it is extremely difficult to attach any decided opinion concerning the cause of such defect, and we are forced to have recourse to the undefined expression of *nervous* inability. We have, however, recently witnessed a remarkable and almost instantaneous cure of this malady. The individual case to which we allude is not singular, many others have been treated precisely in the same manner, and with the same effect. The process by which the cure is accomplished, is at present a secret, but we trust it will not long remain so; and when it shall be generally known and acted upon, one example at least will be afforded us in favour of Dr. Friedlander's hopeful expectations.

Such are the outlines of the medical part of Dr. Friedlander's book. In the moral education we cannot be expected to follow him. His two concluding chapters on this head prove him, however, to be a man of sound judgment, united with good taste and correct sentiment; and we do not hesitate recommending to our readers the whole of the performance.